



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/586,821

07/19/2006

Tetsuji Omura

YKI-0208

5381

23413

7590

01/16/2009

CANTOR COLBURN, LLP

20 Church Street

22nd Floor

Hartford, CT 06103

EXAMINER

RALEIGH, DONALD L

ART UNIT

PAPER NUMBER

2879

NOTIFICATION DATE

DELIVERY MODE

01/16/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

### Office Action Summary

**Application No.**

10/586,821

**Applicant(s)**

OMURA ET AL.

**Examiner**

DONALD L. RALEIGH

**Art Unit**

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☒ Claim(s) 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

The Amendment, filed on October 30, 2008 has been entered and acknowledged by the Examiner.

Claims 1-12 are pending in the instant application.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 8, and 10-11 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Matsumoto et al (JP Pub. No. 2001-189191) in view of Beteille et al (US Patent No. 7,033,655)**

**Regarding Claim 8**, Matsumoto discloses, at least in Figures (Drawings) 1-8, a display panel (abstract) comprising an element substrate (1)) with electroluminescent elements (abstract (EL)) formed thereon and a sealing substrate (17)(drawing 3 and Paragraph [0017]) which is bonded to the element substrate (1) at a peripheral panel bonding part (see drawing 4)(Paragraph [0017]) thereof for sealing a space over the element substrate (1), wherein the element substrate (1) and the sealing substrate (17) are sealed and welded together along the peripheries .

Matsumoto fails to disclose that the sealing of the substrates is done with a low melting point glass, and a portion of the low melting point glass is introduced into a frame shaped groove formed in the sealing substrate

Beteille teaches in an electroluminescent device (Column 1, line 45), a low melting point glass and a portion of the low melting point glass is introduced into a frame shaped groove. Figure 1 of Beteille shows a seal (5) in a peripheral groove (Column 9, lines 33-35) and that this seal can include a frame of low melting point glass (Column 6, lines 50-52). Beteille provides this frame to reinforce the glazing (improve the mechanical strength) of the seal (Column 5, lines 19-21).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the sealing structure, as taught by Beteille, into the display device of Matsumoto, to reinforce the glazing and improve the mechanical strength of the seal.

**Regarding Claim 10**, Matsumoto discloses in Figure 4 (Drawing 4) wherein the groove has a tapered cross section, with the width gradually narrowing from the surface of the sealing substrate towards the bottom of the groove. The groove shown in Figure 4 has a rounded bottom and thus is wider at the top.

**Regarding Claim 11**, Matsumoto discloses in Figure 4 (Drawing 4) wherein the bottom of the groove has a smoothly curved cross section. The groove shown in Figure 4 has a rounded bottom.

**Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Beteille et al (US Patent No. 7,033,655) and further in view of Hsiao et al (US PG Pub. No. 2004/0241920).**

**Regarding Claim 9**, Matsumoto, as modified by Beteille, fails to exemplify the display panel wherein at least one of a color filter, a resinous black matrix, a polarizer, and a phase plate is provided on the surface of the sealing substrate facing the element substrate.

Hsiao teaches In Paragraph [0004], lines 6-7 places a color filter layer on the top glass substrate for allowing transmission of predetermined light wavelengths and enhance color purity.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the color filter, as taught by Hsiao into the display panel of Matsumoto, as modified by Beteille, for allowing transmission of predetermined light wavelengths and enhance color purity.

**Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Beteille (655), and further in view of Sun et al (US PG Pub. No. 2004/0160184).**

**Regarding Claim 12**, Matsumoto, as modified by Beteille, fails to disclose wherein in the direction of the width of the groove, the thickness of the low melting point

glass used for bonding the element substrate to the sealing substrate is less than the width of the groove.

Sun teaches wherein in the direction of the width of the groove (Page 4, right column line 1, 0.3mm to 1.5mm) is the width of the seal and figures 3-7 show the seal (3) confined to the groove. Page 4, right column line 2 states that the thickness of the sealant is 0.05mm to 0.2mm, considerably less than the width of the groove. Page 4, left column, lines 3-4 states that the seal is a low melting point glass. Sun does this to provide an improved display panel (PDP) with narrower sealing parts. (Paragraph [0007], lines 1-4)

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the bonding structure as taught by Sun into the method of Matsumoto, as modified by Beteille, in order to provide an improved display panel with narrower sealing parts.

#### ***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance.

**Regarding Claim 1**, Matsumoto, as modified by Takaoka, Dunham and Jaeger does not teach the specifically claimed order of conducting a thermal processing and then forming a low heat resistant layer. Although Matsumoto, Takaoka, Dunham and Jaeger teach all the elements of the claim, they do not teach them in the order that is critical for the success of the operation.

**Regarding Claims 2-7**, they are allowable for the reasons given in Claim 1

because of their dependency status on Claim 1.

### ***Response to Arguments***

Applicant's arguments filed October 30, 2008 with respect to Claim 1 have been fully considered and they are persuasive. Applicant argues that Matsumoto, as modified by Takaoka, Dunham and Jaeger does not teach the specifically claimed order of conducting a thermal processing and then forming a low heat resistant layer. Although Matsumoto, Takaoka, Dunham and Jaeger teach all the elements of the claim, they do not teach them in the order that is critical for the success of the operation. Therefore, the rejection of claim 1 has been withdrawn.

Applicant's arguments with respect to Claim 8 are not persuasive. Beteille also teaches a glass frame of low melting point glass (Column 6, lines 50-52) which would be placed in the grooves as shown in Figures 2 or 3. Also, Column 4, lines 43-46 teaches that the seals of Beteille have a softening point of between 70 to 180 degrees C. There would be no point to demanding this requirement unless the seals were to be melted by heat.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONALD L. RALEIGH whose telephone number is (571)270-3407. The examiner can normally be reached on Monday-Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



/Peter J Macchiarolo/

Primary Examiner, Art Unit 2879

/Donald L Raleigh/

Examiner, Art Unit 2879